Kentucky Department of Education
Science Adoption 2008-2014

Provided by the Publisher				Provided by the Publisher
ISBN - **0534466699**		Publisher - **Thomson Learning**		
Introductory Botany: Plants, People & Environment				
Type - P1	Author - Berg			
Copyright - 2008	Edition - 2nd	Readability -	9.8 Flesch-Kincaid	
Course - Botany		Grade(s) -	9,10,11,12	
Teacher Edition ISBN if applicable			049510504X	

Overall Recommendation: ☒ **Recommended as Basal**

Overall Strengths, Weaknesses, Comments:

The student edition provides little opportunity for inquiry. The teacher text was not available for review. The text provides for a thorugh study of botany. The teacher will need to provide laboratory and inquiry activities to supplement the student text.

CRITERIA
This basal resource …

A. Encompasses KY Content Standards & Grade Level Expectations	☒ **Strong Evidence** ☐ **Moderate Evidence** ☐ **Little or No Evidence**

☒ Text is designed to be used in an elective course outside the Program of Studies

1) Includes the 7 Big Ideas of science to the following extent:

a)	Structure and Transformation of Matter	☐ Strong	☒ Moderate	☐ Little	☐ N/A
b)	Motion and Forces	☐ Strong	☐ Moderate	☐ Little	☒ N/A
c)	The Earth and the Universe	☐ Strong	☐ Moderate	☐ Little	☒ N/A
d)	Unity and Diversity	☒ Strong	☐ Moderate	☐ Little	☐ N/A
e)	Biological Change	☒ Strong	☐ Moderate	☐ Little	☐ N/A
f)	Energy Transformation	☒ Strong	☐ Moderate	☐ Little	☐ N/A
g)	Interdependence	☒ Strong	☐ Moderate	☐ Little	☐ N/A

2) Addresses content-specific enduring understandings from the related Program of Studies standards. ☒ Strong ☐ Moderate ☐ Little ☐ N/A

3) Addresses content-specific skills and concepts from the related Program of Studies standards. ☒ Strong ☐ Moderate ☐ Little ☐ N/A

4) **Content addressed is current, relevant and non-trivial** ☒ Strong ☐ Moderate ☐ Little ☐ N/A

5) **Provides opportunities for critical thinking/reasoning** ☐ Strong ☒ Moderate ☐ Little ☐ N/A

6) **Strengths, Weaknesses, Comments:**
- Specific strengths-which areas/concepts are covered exceptionally well?
- Specific weaknesses-which areas/concepts would likely require supplementing?

f. Energy Transformation is strong related to biochemistry. g. The student text includes an extensive section on biomes and and human impact on global ecology. There are "Thought Questions", open-ended questions at the end of every chapter. Since the Teacher manual was not provided for review, it was not determined if additional critical thinking were available.

B. Functionality & Suitability	☒ **Strong Evidence** ☐ **Moderate Evidence** ☐ **Little or No Evidence**

1) **Suitability** ☒ Strong ☐ Moderate ☐ Little ☐ N/A

- Should be suitable for use with a diverse population and is free of bias regarding race, age, ethnicity, gender, religion, social and/or geographic environment; is free of stereotyping or bias of any kind.

2) **Content quality** ☒ Strong ☐ Moderate ☐ Little ☐ N/A

- Free from factual errors
- Content is presented conceptually when possible—more than a mere collection of facts
- Content included accurately represents the knowledge base of the discipline
- Theories/scientific models contained represent a broad consensus of the scientific community

3) **Connections to Literacy**
Note: may apply to either student or teacher editions ☒ Strong ☐ Moderate ☐ Little

- Employs a variety of reading levels and is grade/level appropriate
- Contains pre, during, post reading activities
- Provides opportunities for summarizing, reviewing, and reinforcing vocabulary skills and concepts at multiple levels of difficulty for a variety of learning styles.
- Student text provides opportunity to integrate reading and writing
- Uses vocabulary that is age and content appropriate
- Focuses on critical vocabulary vs. extensive lists
- Identifies key vocabulary through definitions in both text and glossary
- Engaging text- does the text facilitate learning?
- Does understanding the text require having performed the imbedded activities?

4) **Connections to Technology** ☐ Strong ☒ Moderate ☐ Little

- Integrates technology and reflects the impact of technological advances

- Uses technology in the collection and/or manipulation of authentic data

5) Support for Diverse Learners ☐ Strong ☐ Moderate ☒ Little

- Provides support for ESL students
- Provides support for differentiation of instruction in diverse classrooms
  Note: may apply only to teacher edition

6) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

1. As a botany text, the book is ethnically neutral but the text does not contain a variety of ethnically diverse photographs or illustations. 3) There are objectives at the beginning of each chapter, key vocabulary are in bold print, supported by a glossary, a study outline at the end of each chapter. Concept statement subheads introduce sections. Thought questions can be used for essay writing or discussions. 4) The student text is accompanied by a supporting web site www.thomsonedu.com that provides career information, animations, and linked web sites to support every chapter. The text does not include technology based labs. Without the Teacher's Edition, no support for diverse learners was evident.

C. Supports Inquiry and Skill Development	☐ **Strong Evidence** ☒ **Moderate Evidence** ☐ **Little or No Evidence**

1) Promotes Inquiry, research and Application of Learning ☐ Strong ☒ Moderate ☐ Little

- Provides opportunities for inquiry and research that includes activities such as self-selecting topics, formulating authentic questions, gathering information, researching resources, observing, interviewing, and evaluating information, analyzing and synthesizing data and communicating findings and conclusions.
- Requires students to use higher-level cognitive skills (analysis, synthesis, evaluation, etc.)
- Provides activities and projects for students to deepen their knowledge and cultivate and strengthen problem-solving and decision-making skills.
- Provides opportunities for application of learned concepts.
- Uses a variety of relevant charts, graphs, diagrams, time lines, and other illustrations to invite and motivate students to engage in discussion, problem solving, and other high-order thinking skills.
- Emphasizes conceptual understandings that invite students to predict, conclude, evaluate, develop and extend ideas to support reasoning.
  Note: may apply to either teacher or student edition

2) Skill Development ☐ Strong ☐ Moderate ☒ Little

- Provides opportunities to make sense of data
- Provides opportunities for critical thinking and reasoning (analyze arguments, distinguish fact/opinion, recognize bias)
- Provides opportunities to examine a range of types of evidence
- Contains embedded activities (or extensions) that emphasize use of technology for problem solving

Note: may apply to either teacher or student edition

3) Strengths, Weaknesses, Comments:

Thought questions are provided at the end of the chapter. There are no laboratories evident, little opportunities for inquiry.

D. Supports Best Practices of Teaching and Learning	☐ **Strong Evidence** ☒ **Moderate Evidence** ☐ **Little or No Evidence**

1) Engages Students ☒ Strong ☐ Moderate ☐ Little

- Includes content geared to the needs, interests, and abilities of students
- Engages and motivates students using components such as real-life situations, simulations, experiments, and data gathering.
- Includes information and activities that assist students in seeing relevance of concepts (where appropriate) to their own lives and experiences
- Provides a variety of strategies, activities, and materials to enhance student learning at the appropriate learning levels
- Activities are truly congruent to the concepts addressed, not merely correlated
  Note: may apply to either teacher or student edition

2) Uses Assessment to Inform Instruction ☐ Strong ☐ Moderate ☒ Little

- Includes multiple means of assessment as an integral part of instruction
- Provides evaluation measures in the teacher edition that supports differentiated learning activities
- Embedded assessments reflect a variety of Depth of Knowledge levels
  Note: may apply to either teacher or student edition

3) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards

Process of Science icons highlight discussions about the work that scientists do. Icons/boxes highlight the environment, the human importance of plants and topics that relate to environmental issues and current events. 2) Teacher edition not provided to determine assessments available. Thought Questions are provided at the end of each chapter. The student text web site provides interactive quizzes that references the student text with page numbers for incorrect answers.

E. Has an Organization/ Format that Supports Learning and Teaching	☒ **Strong Evidence** ☐ **Moderate Evidence** ☐ **Little or No Evidence**

1) Organizational Quality ☒ Strong ☐ Moderate ☐ Little

- Print and/or electronic materials present minimal barriers to learners
- Presents chapters/lessons in an organized and logical sequence
- Provides clearly stated objectives for each lesson.
- Uses text features (e.g., titles, headings, subheadings, review questions, goals, objectives, space, print, type size, color) to enhance readability.
- Makes use of various forms of media (e.g., CD's, recordings, videos, cassette tapes, computer software, web-based components) as either student or teacher resources
- Includes clear, accurate, appropriate and clearly explained illustrations and/or graphics that reinforce content standards.
- Incorporates a glossary, footnotes, recordings, pictures, and/or tests that aid pupils and teachers in using the book effectively
- Uses grade-appropriate type size

Included media are durable, easy to use and have technical merit

- Construction appears to be durable and able to withstand normal use

2) Essential Components (beyond student and teacher text) ☐ Strong ☐ Moderate ☒ Little

- Items identified as essential components support the learning goals and concept coverage of the basal

3) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

Process of Science icons highlight discussions about the work that scientists do. Icons/boxes highlight the environment, the human importance of plants and topics that relate to environmental issues and current events. Learning objectives in the beginning of each chapter. Uses grade-appropriate font. Balanced use of text/whitespace and photographs/illustrations. Concept statement subheads preview sections and summarize key ideas. Website provided for each student text, with access code.

F. Has available Ancillary/ Gratis Materials *Note: The decision whether to recommend or not recommend this resource as a basal should not be influenced by Section F*	☒ **Strong Evidence** ☐ **Moderate Evidence** ☐ **Little or No Evidence**

1) Ancillary/Gratis Materials

- Coordinates teacher resources easily with student material (e.g., accompaniments included, student pages shown, instructional technology indicated).
- Are well-organized and easy to use
- Provide substantive learning opportunities and are congruent with student learning goals
- Provide opportunities for high-level thinking, assessment, and/or problem solving

2) Strengths, Weaknesses, Comments:

- Reviewers may provide page numbers to point out specific strong examples for individual evaluation standards.

Ancillary materials available include an Instructor's Manual with Test Bank, a Laboratry Manual, a Multimedia Manager, Overhead Transparencies, and Virtual Biology Labs.

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